

A REVISED CHECK-LIST OF THE PTERIDOPHYTA OF SOUTHERN AFRICA

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ABSTRACT

The check-list of the Pteridophyta of Southern Africa, south of the Cunene and Zambesi rivers, published in 1952 is brought up to date. New taxa proposed are *Lycopodium complanatum* subsp. *zanclophyllum* (Wilce) Schelpe, *Pellaea hastata* var. *reticulata* Schelpe, *Pellaea hastata* var. *minor* (Kunze) Schelpe, *Phymatodes ensiformis* (Thunb.) Schelpe and *Woodsia montevidensis* var. *burgessiana* (Gerr. ex Hook. & Bak.) Schelpe.

INTRODUCTION

Since the publication of the last check-list of the Pteridophyta of Southern Africa, south of the Cunene and Zambesi rivers (Alston & Schelpe, 1952), there has been extensive collecting resulting in new records, new approaches to the classification of the ferns and more intensive work on their taxonomy and nomenclature. Although the present author hopes to publish his monograph on the Southern African Pteridophyta in the near future, there is an obvious need by South African botanists for this revised check-list.

The concepts and arrangement of families and genera is generally in accord with Alston's (1959) treatment of the Pteridophyta for the Flora of West Tropical Africa and follows the present author's treatment of the ferns for the Flora Zambesiaca. Synonyms are given in italics in brackets, and mis-identifications appearing in the earlier check-list are given between quotation marks. Introduced species which have become "weeds" are shown in square brackets.

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PSILOTALES

PSILOTACEAE

Psilotum Sw.

nudum (L.) Griseb.

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LYCOPODIALES

LYCOPODIACEAE

Lycopodium L.**saurosum** Lam.**gnidioides** L.f.**dacrydioides** Bak.**verticillatum** L.f.**ophioglossoides** Lam.**clavatum** L. var. **inflexum** (Beauv.) Spring**cernuum** L.**complanatum** L. subsp. **zanclophyllum** (Wilce) Schelpe¹**carolinianum** L.& var. **affine** (Bory) Schelpe& var. **grandifolium** Spring (*L. sarcocaulon* A. Br. & Welw. ex Kuhn)

SELAGINELLALES

SELAGINELLACEAE

Selaginella Beauv.**pygmaea** (Kaulf.) Alston**caffrorum** (Milde) Hieron.**dregei** (Presl) Hieron.**mittenii** Bak.**kraussiana** (Kunze) A. Br.**abyssinica** Spring**imbricata** (Forsk.) Spring ex Decne.

ISOETALES

ISOETACEAE

Isoetes L.**giessii** Launert**capensis** Duthie**stephansenii** Duthie**natalensis** Bak.**stellenbossiensis** Duthie

¹ *Lycopodium complanatum* L. subsp. *zanclophyllum* (Wilce) Schelpe comb. nov. et stat. nov.—basionym: *Lycopodium zanclophyllum* Wilce in *Nova Hedwigia* 3: 108, t. 3A, figs. 9–10, t. 3B, figs. 9–10, t. 8 (1961).

wormaldii Sim
rhodesiana Alston
alstonii C. F. Reed & Verdcourt

EQUISETALES

EQUISETACEAE

Equisetum L.
ramosissimum Desf.

OPHIOGLOSSALES

OPHIOGLOSSACEAE

Ophioglossum L.
bergianum Schlechtend.
gomezianum Welw. ex A. Br.
costatum R. Br.
nudicaule L.f.
vulgatum L. var. **kilimandscharicum** Hieron.
polyphyllum A. Br. ex Seubert ("O. *sarcophyllum*")
reticulatum L.

MARATTIALES

MARATTIACEAE

Marattia Sw.
fraxinea Sm. ex Gmel. var. **salicifolia** (Schrad.) C. Chr.

FILICALES

OSMUNDACEAE

Osmunda L.
regalis L.
Todea Willd.
barbara (L.) Moore

SCHIZAEACEAE

Schizaea Sm.
pectinata (L.) Sw.
tenella Kaulf.

Lygodium Sw.**kerstenii** Kuhn**microphyllum** (Cav.) R. Br. ("L. scandens")**Anemia Sw.****dregeana** Kunze**simii** Tard. emend Alston**angolense** Alston**Mohria Sw.****caffrorum** (L.) Desv.**lepigera** Bak.

GLEICHENIACEAE

Gleichenia Sm.**polypodioides** (L.) Sm.**umbraculifera** (Kunze) Moore (*Sticherus umbraculiferus* (Kunze) Ching)**Dicranopteris Bernh.****linearis** (Burm.) Underw.

HYMENOPHYLLACEAE

Trichomanes L.**erosum** Willd.& var. **aerugineum** (v.d. Bosch) Schelpe**reptans** Sw. (*T. montanum* Hook.)**pyxidiferum** L. var. **melanotrichum** (Schlechtend.) Schelpe**borbonicum** v.d. Bosch**rigidum** Sw.**Hymenophyllum Sm.****sibthorpioides** (Bory ex Willd.) Mett. ex Kuhn**capillare** Desv.**marlothii** Brause**capense** Schrad. ("*H. fumarioides*")**polyanthos** Sw. var. **kuhnii** (C. Chr.) Schelpe (*H. kuhnii* C. Chr.)& var. **mossambicense** Schelpe**tunbridgense** (L.) Sm.**peltatum** (Poir.) Desv. (*H. uncinatum* Sim)

CYATHEACEAE

Cyathea Sm.**mossambicensis** Bak. (*C. holstii* Hieron.)**thomsonii** Bak.

- manniana** Hook. (*C. deckenii* Kuhn)
dregei Kunze
capensis (L.f.) Smith (*Hemitelia capensis* (L.f.) Kaulf.)

MARSILEACEAE

Marsilea L.

- coromandelina** Willd. (*M. trichocarpa* Bremek.)
ephippiocarpa Alston
apposita Launert
nubica A. Br.
aegyptiaca Willd.
capensis A. Br.
burchellii (Kunze) A. Br.
macrocarpa (D.C.) Presl
farinosa Launert
fenestrata Launert
vera Launert
schelpiana Launert
unicornis Launert
villifolia Bremek. & Oberm. ex Alston & Schelpe

SALVINIACEAE

Salvinia Adans.

- hastata** Desv.
[**auriculata** Aubl.]

AZOLLACEAE

Azolla Lam.

- pinnata** R. Br. var. **africana** (Desv.) Bak.
nilotica Decne. ex Mett.

DENNSTAEDTIACEAE

Microlepidia Presl

- speluncae** (L.) Moore

Hypolepis Bernh.

- sparsisora** (Schrad.) Kuhn

Pteridium Gled.

- aquilinum** (L.) Kuhn
& subsp. **centrali-africanum** Hieron.

Blotiella Tryon**natalensis** (Hook.) Tyron (*Lonchitis natalensis* Hook.)**glabra** (Bory) Tryon (*Lonchitis stenochlamys* Fée)**Histiopteris** J. Sm.**incisa** (Thunb.) J. Sm.

VITTARIACEAE

Vittaria Sm.**isoetifolia** Bory**guineensis** Desv. var. **orientalis** Hieron.**volkensii** Hieron.**elongata** Sw. (*V. hildebrandtii* Hieron.)

ADIANTACEAE

Acrostichum L.**aureum** L.**Ceratopteris** Brogn.**thalictroides** (L.) Brogn. ("C. cornuta")**Pityrogramma** Link**argentea** (Willd.) Domin[**calomelanos** (Sw.) Link var. **aureoflava** (Hook.) Weath. ex Bailey]
(*P. austroamericana* Domin)**Anogramma** Link**leptophylla** (L.) Link**Adiantum** L.**incisum** Forsk. ("A. caudatum")**philippense** L.**mettenii** Kuhn ex C. Chr. ("A. soboliferum")**mendoncae** Alston**patens** Willd. subsp. **oatesii** (Bak.) Schelpe (*A. oatesii* Bak.)**hispidulum** Sw.**capillus-veneris** L.**aethiopicum** L.**poiretii** Wikstr. (*A. sulphureum* Kaulf.)[**raddianum** Presl]**Pteris** L.**vittata** L.**cretica** L.**dentata** Forsk. subsp. **flabellata** (Thunb.) Runem.**catoptera** Kunze (*P. quadriaurita* Retz.)& var. **horridula** Schelpe

friesii Hieron.

intricata C. H. Wright

pteridioides (Hook.) Ballard

buchananii Bak. ex Sim

hamulosa Christ

(*P. acanthoneura* Alston)

Cheilanthes Sw. (including *Notholaena* R. Br.)

rawsonii Pappe

eckloniana Kunze

marlothii Hieron

inaequalis Kunze

& var. **buchananii** (Bak.) Schelpe

leachii (Schelpe) Schelpe

capensis (Thunb.) Sw.

depauperata Bak.

contracta Mett. ex Kuhn

hirta Sw.

parviloba Sw.

induta Kunze

dinteri Brause

multifida Sw.

farinosa Kaulf.

mossambicensis Schelpe

bergiana Schlechtend. ex Kunze

Doryopteris J. Sm.

concolor (Langsd. & Fisch.) Kuhn var. **kirkii** (Hook.) Fries

& var. **nicklesii** (Tardieu) Schelpe

Pellaea Link

pteroides (L.) Prantl

deltoidea (Kunze) Bak.

robusta (Kunze) Hook.

hastata (L.f.) Link

(*P. auriculata* (Thunb.) Fée)

& var. **reticulata** Schelpe²

& var. **minor** (Kunze) Schelpe³

viridis (Forsk.) Prantl

& var. **macrophylla** Sim

& var. **glauca** Sim

& var. **involuta** (Sw.) Schelpe (*P. involuta* Bak.)

² *Pellaea hastata* var. *reticulata* Schelpe var. nov. differt a varietate typico, sporis reticulatis. Typus: 5 mls N. from Sutherland *Schelpe* 4948 (BOL).

³ *Pellaea hastata* var. *minor* (Kunze) Schelpe comb. nov.—basionym: *Cheilanthes profusa* var. *minor* Kunze in *Linnaea* 10: 535 (1836). Syn. *Cheilanthes kunzei* Mett.

- namaquensis** Bak.
quadripinnata (Forsk.) Prantl
dolomiticola Schelpe
calomelanos (Sw.) Link
 & var. **swynnertoniana** (Sim) Schelpe (*P. swynnertoniana* Sim)
goudotii (Kunze) C.Chr.
longipilosa Bonap.
dura (Willd.) Bak.
doniana J. Sm. ex Hook.
angulosa (Bory ex Willd.) Bak.
boivinii Hook.
rufa A. Tryon. (“*P. andromedifolia*”)
Aspidotis Nutt. ex Hook.
 schimperii (Kunze) Pic. Serm. (*Hypolepis schimperii* Hook.)
Actiniopteris Link
 radiata (Sw.) Link (“*A. australis*”)
 dimorpha Pic. Serm.
 pauciloba Pic. Serm.

LINDSAEACEAE

- Lindsaea** Dryand.
 odorata Roxb.
 ensifolia Sw. (*Schizoloma ensifolia* (Sw.) J. Sm.)

GRAMMITIDACEAE

- Grammitis** Sw.
 magellanica Desv. (*Polypodium magellanicum* (Desv.) Copel.)
 nanodes (A. Peter) Ching
Xiphopteris Kaulf.
 serrulata (Sw.) Kaulf.
 flabelliformis (Poir.) Schelpe (*Polypodium rigescens* Bory)

POLYPODIACEAE

- Platyserium** Desv.
 alcicorne Desv.
 elephantotis Schweinf. (*P. angolense* Welw. nom.inval.)
Pyrrosia Mirb.
 africana (Kunze) Ballard
 rhodesiana (C. Chr.) Schelpe
 schimperiana (Mett.) Alston
 lanceolata (L.) Farwell

Belvisia Mirb.**spicata** (L.f.) Mirb.**Loxogramme** Presl**lanceolata** (Sw.) Presl**Polypodium** L.**vulgare** L.**polypodioides** (L.) Hitch. subsp. **ecklonii** (Kunze) Schelpe (*P. ecklonii* Kunze)**vulgare** L.**Phymatodes** Presl**scolopendria** (Burm.) Ching (*Polypodium scolopendria* Burm.f.)**ensiformis** (Thunb.) Schelpe⁴**Pleopeltis** Willd.**macrocarpa** (Willd.) Kaulf. (*Polypodium lanceolatum* L.)**schraderi** (Mett.) Tard. (*Polypodium schraderi* Mett.)**excavata** (Bory ex Willd.) Sledge (*Polypodium excavatum* Bory)**Microgramma** Presl**lycopodioides** (L.) Copel. (*Polypodium lycopodioides* L.)**Microsorium** Link**punctatum** (L.) Copel. (*Polypodium polycarpon* Cav.)**pappei** (Mett. ex Kuhn) Ching (*Polypodium pappei* Mett.)**[scandens** (Forst.) Tindale]

DAVALLIACEAE

Nephrolepis Schott**biserrata** (Sw.) Schott**undulata** (Afz. ex Sw.) J. Sm.**[exaltata** (L.) Schott]**Arthropteris** J. Sm.**orientalis** (Gmel.) Posth.**monocarpa** (Cordem.) C. Chr.**Oleandra** Cav.**distenta** Kunze**Davallia** Sm.**chaerophylloides** (Poir.) Steud.

ASPLENIACEAE

Asplenium L.**holstii** Hieron.**anisophyllum** Kunze

⁴ *Phymatodes ensiformis* (Thunb.) Schelpe comb. nov.—basionym: *Polypodium ensiforme* Thunb., Prod. Pl. Cap.: 172 (1800).

- christii** Hieron.
boltonii Hook. ex Schelpe
prionitis Kunze
gemmiferum Schrad.
atroviride Schelpe
obscurum Blume
unilaterale Lam.
stoloniferum Bory (A. kraussii Moore)
trichomanes L.
lunulatum Sw.
platyneuron (L.) Oakes
monanthes L.
erectum Bory ex Willd.
 & var. **usambarense** (Hieron.) Schelpe
lobatum Pappe & Raws.
varians Wall. ex Hook. var. **fimbriatum** (Kunze) Schelpe
auritum Sw.
pumilum Sw. subsp. **hymenophylloides** (Fée) Schelpe
friesiorum C. Chr.
protensum Schrad.
pellucidum Lam. subsp. **pseudohorridum** (Hieron.) Schelpe
formosum Willd.
ramlowii Hieron.
simii Braithw. & Schelpe
lividum Mett. ex Kuhn
aethiopicum (Burm.) Becherer
splendens Kunze
buettneri Hieron.
blastophorum Hieron. ex Brause
torrei Schelpe
linckii Kuhn
sandersonii Hook.
dregeanum Kunze
preussii Hieron. subsp. **austroafricanum** Schelpe
pseudoauriculatum Schelpe
rutaefolium (Berg.) Kunze
 & var. **bipinnatum** (Forsk.) Schelpe
mannii Hook.
hypomelas Kuhn (*Loxoscaphe nigrescens* (Hook.) Moore)
theciferum (HBK) Mett. var. **concinnum** (Schrad.) Schelpe
 (*Loxoscaphe theciferum* var. *concinnum* C. Chr.)

Ceterach Gars.

cordatum (Thunb.) Desv.

THELYPTERIDACEAE

Thelypteris Schmid.

confluens (Thunb.) Morton

(*Dryopteris thelypteris* (L.) Gray)

bergiana (Schlechtend.) Ching

(*Dryopteris bergiana* (Schl.) O. Ktze.)

strigosa (Willd.) Tard.

chaseana Schelpe

gueinziana (Mett.) Schelpe

("(*Dryopteris membranifera*")

longicuspis (Bak.) Schelpe

dentata (Forsk.) E. St. John

(*Dryopteris dentata* (Forsk.) C. Chr.)

& var. **buchananii** Schelpe

quadrangularis (Fée) Schelpe

elata (Mett. ex Kuhn) Schelpe

totta (Thunb.) Schelpe

(*Dryopteris gongylodes* (Schk.) O. Ktze.)

extensa (Blume) Morton

(*Dryopteris impressus* (Desv.) Posth.)

madagascariensis (Fée) Schelpe

(*Dryopteris silvatica* (P. & R.) C. Chr.)

pozoi (Lagasca) Morton

(*Dryopteris africana* (Desv.) C. Chr.)

Ampelopteris

prolifera (Retz.) Copel

(*Dryopteris prolifera* (Retz.) C. Chr.)

ATHYRIACEAE

Cystopteris Bernh.

fragilis (L.) Bernh.

Athyrium Roth.

schimperi Moug. ex Fée

scandicinum (Willd.) Presl

& var. **rhodesianum** Schelpe

Diplazium Sw.

zanzibaricum (Bak.) C. Chr.

nemorale (Bak.) Schelpe

(*D. stolzii* Brause)

Dryoathyrium Ching

boryanum (Willd.) Ching.

(*Dryopteris kiboschensis* (Hieron.) C. Chr.)

LOMARIOPSIDACEAE

Elaphoglossum Schott

acrostichoides (Hook.) Schelpe

("(*E. angustatum*")

marojejense Tard.

- angustatum** (Schrad.) Hieron.
conforme (Sw.) J. Sm.
lastii (Bak.) C. Chr.
macropodium (Fée) Moore ("E. isabelense")
petiolatum (Sw.) Urban var. **salicifolium** (Willd. ex Kaulf.) C. Chr.
aubertii (Desv.) Moore
hybridum (Bory) Moore
drakensbergense Schelpe
spathulatum (Bory) Moore
chevalieri Christ
kuhnii Hieron.
deckenii (Kuhn) C. Chr.
Lomariopsis Fée
warneckei (Hieron.) Alston
Bolbitis Schott
heudelotii (Bory) Alston (*Leptochilus heudelotii* (Bory) C. Chr.)

ASPIDIACEAE

- Woodsia** R. Br.
montevidensis (Spreng.) Hieron. var. **burgessiana** (Gerr. ex Hook. & Bak.) Schelpe⁵ (*W. burgessiana* Gerr.)
Didymochlaena Desv.
truncatula (Sw.) J. Sm.
Dryopteris Adans.
wallichiana (Spreng.) Hyl.
manniana (Hook.) C. Chr.
inaequalis (Schlechtend.) O. Kuntze (*D. pentheri* (Krass.) C. Chr.)
callolepis C. Chr.
athamantica (Kunze) O. Kuntze
kilemensis (Kuhn) O. Kuntze
squamiseta (Hook.) O. Kuntze
Hypodematum Kunze
crenatum (Forsk.) Kuhn (*Dryopteris crenata* (Forsk.) O. Ktze.)
Phanerophlebia Presl
caryotideae (Wall. ex Hook. & Grev.) Copel. var. **micropteris** (Kunze) C. Chr. (*Cyrtomium caryotideum* var. *micropteris* (Kze.) C. Chr.)
Polystichum Roth
macleanii (Bak.) Diels

⁵ *Woodsia montevidensis* var. *burgessiana* (Gerr. ex Hook. & Bak.) Schelpe comb. nov. et, stat. nov.—basionym: *Woodsia burgessiana* Gerrard ex Hook. & Bak., Syn. Fil., ed. i. 48 (1866).

- luctuosum** Moore
lucidum (Burm.) Becherer
zambesiaceum Schelpe ("P. *ammifolium*")
setiferum (Forsk.) Woyнар
 & var. **fuscopaleaceum** (Alston) Schelpe
 & var. **stenophyllum** (Bonap.) Alston
Arachniodes Blume
 foliosa (C. Chr.) Schelpe ("Polystichum *aristatum*")
Ctenitis C. Chr.
 cirrhusa (Schum.) Ching (*Dryopteris cirrhosa* (Schum.) O. Ktze.)
 lanuginosa (Willd. ex Kaulf.) Copel. (*Dryopteris lanuginosa* (Willd.) C. Chr.)
Tectaria Cav.
 gemmifera (Fée) Alston
Rumohra Raddi
 adiantiformis (Forst.) Ching (*Polystichum adiantiforme* (Forst.) J. Sm.)

BLECHNACEAE

- Blechnum** L.
 ivohibense C. Chr.
 inflexum (Kunze) Kuhn
 attenuatum (Sw.) Mett. var. **giganteum** Bonap.
 tabulare (Thunb.) Kuhn
 capense (L.) Schlechtend.
Stenochlaena J. Sm.
 tenuifolia (Desv.) Moore

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